

rye apa

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **44**
- SRM **3.7**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **25.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **36.1 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **17.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **24.5 liter(s)** of **76C** water or to achieve **36.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------|----------------|--------|-----|
| Grain | Maris Otter Extra Crisp | 3 kg (51.7%) | 83 % | 5 |
| Grain | Żytni Steinbach | 2 kg (34.5%) | 85 % | 5 |
| Grain | Rye, Flaked | 0.8 kg (13.8%) | 78.3 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|------------|--------|----------|------------|
| Boil | Chinook | 25 g | 60 min | 12 % |
| Boil | Chinook | 25 g | 15 min | 12 % |
| Aroma (end of boil) | Mosaic | 50 g | 1 min | 10 % |
| chmiel dodany na 0 min ,po minucie chłodzenie do 80*C przerwa 15 min ,dalsze chłodzenie | | | | |
| Aroma (end of boil) | Galaxy | 50 g | 1 min | 15 % |
| Aroma (end of boil) | Centennial | 50 g | 1 min | 10.5 % |
| Dry Hop | Mosaic | 50 g | 3 day(s) | 10 % |
| Dry Hop | Centennial | 50 g | 3 day(s) | 10.5 % |
| Dry Hop | Galaxy | 50 g | 3 day(s) | 15 % |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------|--------|---------|--------|
| Fining | mech | 5 g | Boil | 10 min |